

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P130730

Luminaire Tested: **TBLED-LD1-11-W-UNV-L840-CD1-DIMRF-LW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P130730
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25252)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: TBLED-LD1-11-W-UNV-L840-CD1-DIMRF-LW
Description: METALUX TOP BAY LED LOW-BAY LUMINAIRE.
WIDE DISTRIBUTION WITH LUMAWATT WIRELESS SENSOR.
Light Source: (160) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9417.4 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.42 / 1.71
Luminous Opening: Circular (Dia: 1.12' x H: 0')
CIE Type: Direct

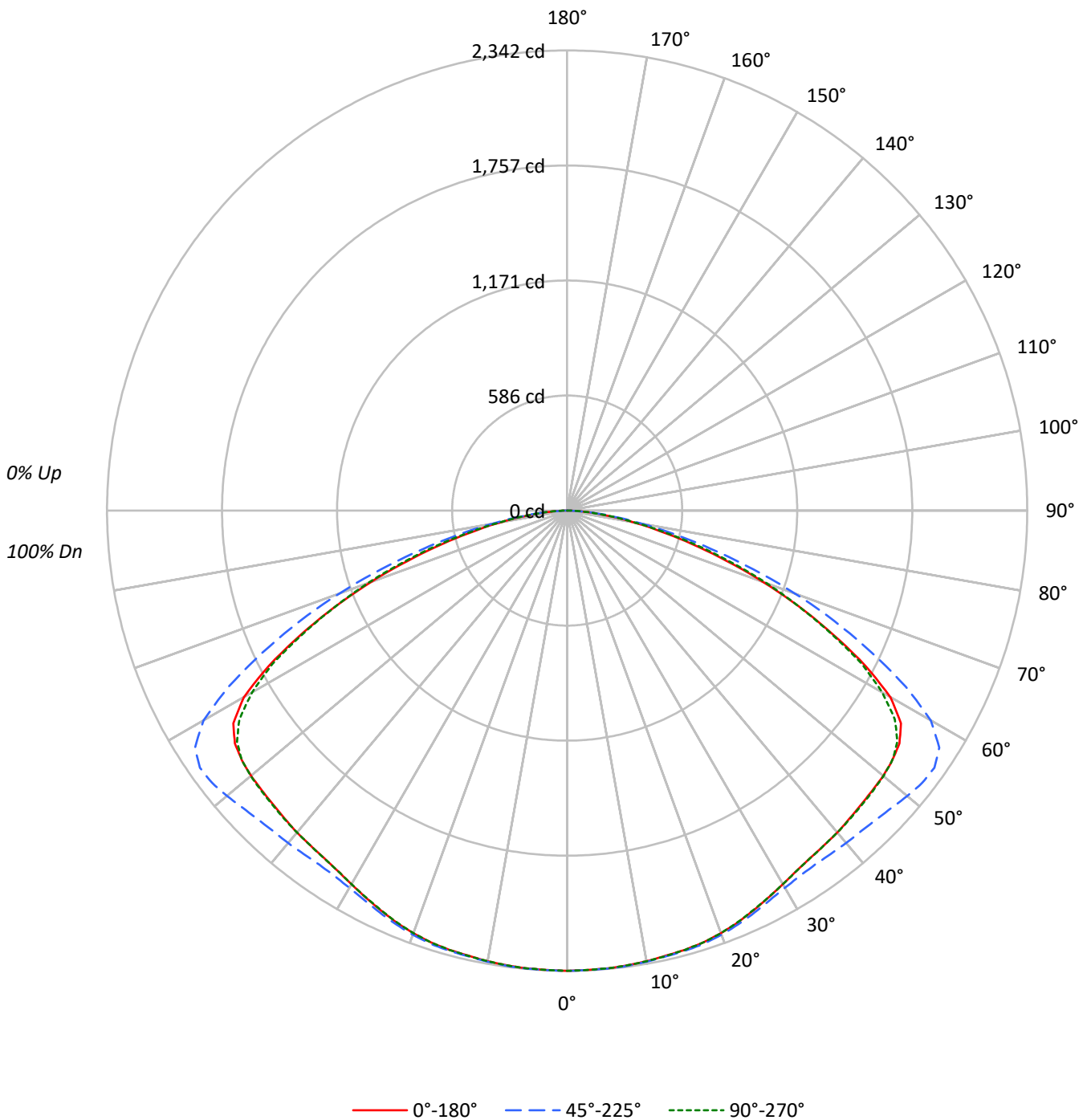
Input Watts (W): 108
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	88	81	74	94	86	79	73	82	77	72	79	74	70	76	72	68	66
3	87	76	67	60	85	74	66	59	71	64	58	68	62	57	66	61	56	54
4	79	66	57	49	77	65	56	49	62	55	48	60	53	48	58	52	47	45
5	72	58	49	42	70	57	48	41	55	47	41	53	46	40	51	45	40	38
6	66	52	42	36	64	51	42	35	49	41	35	47	40	35	46	39	34	32
7	61	47	37	31	59	46	37	31	44	36	30	43	36	30	41	35	30	28
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	24
9	53	39	30	24	51	38	30	24	37	29	24	36	29	24	35	28	23	22
10	49	35	27	22	48	35	27	21	34	26	21	33	26	21	32	26	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	25365	25365	25365
5°	25422	25435	25422
10°	25608	25635	25608
15°	25945	26000	25945
20°	26373	26471	26373
25°	26818	26965	26803
30°	27454	27714	27454
35°	28523	29073	28539
40°	30241	31227	30241
45°	32406	34054	32463
50°	35381	38059	35401
55°	38980	43067	38727
60°	41166	46280	40107
65°	38298	43846	37986
70°	33614	39076	34156
75°	27480	31936	28555
80°	21433	24333	21895
85°	15195	16872	15506



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.0	2.4
10°-20°	655.7	7.0
20°-30°	1040.7	11.1
30°-40°	1371.7	14.6
40°-50°	1684.0	17.9
50°-60°	1922.3	20.4
60°-70°	1581.4	16.8
70°-80°	776.0	8.2
80°-90°	162.4	1.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1919.5	20.4
0°-40°	3291.2	34.9
0°-60°	6897.5	73.2
0°-90°	9417.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9417.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2342	2342	2342	2342	2342	
5°	2339	2340	2340	2340	2339	223
15°	2314	2316	2319	2317	2314	655
25°	2244	2252	2257	2252	2243	1037
35°	2158	2180	2199	2180	2159	1357
45°	2116	2171	2224	2175	2120	1640
55°	2065	2181	2281	2174	2051	1830
65°	1495	1613	1711	1611	1482	1475
75°	657	720	763	729	682	711
85°	122	133	136	132	125	151
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4
2.5°	2339.9	2339.9	2339.9	2339.9	2341.2	2341.2	2341.2	2341.2	2341.2	2341.2	2339.9
5°	2338.7	2338.7	2338.7	2338.7	2339.9	2339.9	2339.9	2339.9	2339.9	2339.9	2339.9
7.5°	2335.1	2335.1	2336.3	2336.3	2336.3	2336.3	2336.3	2337.5	2337.5	2337.5	2337.5
10°	2328.9	2328.9	2328.9	2328.9	2330.2	2330.2	2331.4	2331.4	2331.4	2331.4	2331.4
12.5°	2320.4	2320.4	2321.6	2321.6	2321.6	2322.8	2324.0	2324.0	2324.0	2324.0	2324.0
15°	2314.3	2314.3	2314.3	2315.5	2315.5	2316.7	2317.9	2317.9	2319.2	2319.2	2319.2
17.5°	2304.5	2305.7	2305.7	2305.7	2306.9	2308.1	2310.6	2310.6	2311.8	2311.8	2311.8
20°	2288.6	2288.6	2289.8	2291.0	2292.2	2293.5	2295.9	2297.1	2297.1	2297.1	2298.4
22.5°	2269.0	2269.0	2270.2	2271.4	2273.9	2275.1	2277.6	2278.8	2278.8	2278.8	2278.8
25°	2244.5	2245.8	2247.0	2248.2	2250.7	2253.1	2255.5	2258.0	2258.0	2256.8	2258.0
27.5°	2220.1	2221.3	2222.5	2225.0	2227.4	2229.9	2232.3	2234.8	2234.8	2234.8	2236.0
30°	2195.6	2196.8	2199.3	2201.7	2205.4	2207.8	2211.5	2215.2	2216.4	2216.4	2215.2
32.5°	2173.6	2174.8	2178.5	2182.2	2187.0	2191.9	2196.8	2200.5	2204.2	2204.2	2201.7
35°	2157.7	2158.9	2163.8	2169.9	2177.3	2183.4	2189.5	2194.4	2199.3	2199.3	2198.1
37.5°	2147.9	2149.1	2155.2	2162.6	2173.6	2182.2	2190.7	2196.8	2201.7	2203.0	2201.7
40°	2139.3	2140.6	2147.9	2157.7	2169.9	2182.2	2193.2	2201.7	2206.6	2209.1	2209.1
42.5°	2127.1	2129.6	2136.9	2150.4	2165.0	2179.7	2193.2	2205.4	2211.5	2214.0	2212.7
45°	2116.1	2118.6	2128.3	2144.2	2161.4	2179.7	2196.8	2211.5	2220.1	2223.7	2221.3
47.5°	2107.5	2111.2	2123.4	2141.8	2162.6	2185.8	2206.6	2223.7	2234.8	2239.6	2236.0
50°	2100.2	2105.1	2118.6	2140.6	2167.5	2196.8	2221.3	2240.9	2254.3	2259.2	2255.5
52.5°	2086.7	2095.3	2111.2	2138.1	2171.1	2204.2	2233.5	2256.8	2272.7	2277.6	2272.7
55°	2064.7	2073.3	2091.6	2122.2	2162.6	2199.3	2234.8	2260.4	2275.1	2281.2	2273.9
57.5°	2014.6	2023.1	2041.5	2077.0	2117.3	2158.9	2195.6	2223.7	2242.1	2245.8	2231.1
60°	1900.8	1906.9	1935.1	1970.5	2009.7	2050.1	2088.0	2119.8	2135.7	2136.9	2116.1
62.5°	1712.5	1722.2	1750.4	1788.3	1825.0	1858.0	1893.5	1926.5	1938.7	1943.6	1927.7
65°	1494.7	1508.2	1529.0	1563.2	1599.9	1626.8	1666.0	1694.1	1706.3	1711.2	1705.1
67.5°	1278.2	1290.5	1301.5	1334.5	1367.5	1393.2	1431.1	1456.8	1466.6	1473.9	1470.3
70°	1061.7	1072.7	1082.5	1109.4	1135.1	1168.1	1190.2	1214.6	1220.7	1234.2	1228.1
72.5°	851.3	859.9	869.7	895.4	911.3	946.7	956.5	977.3	988.3	992.0	985.9
75°	656.8	663.0	674.0	694.8	707.0	733.9	737.6	755.9	763.3	763.3	760.8
77.5°	486.8	491.7	504.0	516.2	528.4	546.8	543.1	555.3	560.2	562.7	560.2
80°	343.7	349.8	352.3	362.1	373.1	380.4	378.0	384.1	385.3	390.2	389.0
82.5°	220.2	226.3	222.6	228.7	236.1	241.0	242.2	242.2	242.2	245.9	244.6
85°	122.3	127.2	124.8	127.2	130.9	134.5	132.1	133.3	134.5	135.8	134.5
87.5°	40.4	45.3	41.6	42.8	45.3	47.7	48.9	45.3	47.7	47.7	47.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4	2342.4
2.5°	2339.9	2339.9	2339.9	2339.9	2339.9	2339.9	2339.9	2339.9
5°	2339.9	2339.9	2339.9	2339.9	2338.7	2338.7	2338.7	2338.7
7.5°	2336.3	2336.3	2336.3	2336.3	2335.1	2335.1	2335.1	2335.1
10°	2330.2	2330.2	2330.2	2328.9	2328.9	2328.9	2328.9	2328.9
12.5°	2324.0	2322.8	2322.8	2322.8	2322.8	2321.6	2321.6	2321.6
15°	2319.2	2317.9	2317.9	2316.7	2315.5	2315.5	2314.3	2314.3
17.5°	2310.6	2310.6	2309.4	2308.1	2306.9	2305.7	2305.7	2304.5
20°	2297.1	2295.9	2293.5	2292.2	2292.2	2291.0	2289.8	2288.6
22.5°	2277.6	2276.3	2275.1	2272.7	2271.4	2270.2	2269.0	2267.8
25°	2255.5	2254.3	2253.1	2250.7	2249.4	2247.0	2245.8	2243.3
27.5°	2233.5	2233.5	2229.9	2227.4	2225.0	2222.5	2221.3	2218.9
30°	2214.0	2212.7	2210.3	2205.4	2203.0	2199.3	2196.8	2195.6
32.5°	2199.3	2198.1	2193.2	2187.0	2182.2	2177.3	2176.0	2173.6
35°	2195.6	2190.7	2183.4	2176.0	2169.9	2163.8	2160.1	2158.9
37.5°	2199.3	2190.7	2182.2	2172.4	2163.8	2155.2	2150.4	2147.9
40°	2203.0	2194.4	2184.6	2171.1	2158.9	2149.1	2143.0	2139.3
42.5°	2205.4	2195.6	2183.4	2167.5	2152.8	2140.6	2133.2	2129.6
45°	2211.5	2200.5	2184.6	2165.0	2146.7	2133.2	2124.7	2119.8
47.5°	2225.0	2209.1	2189.5	2166.3	2144.2	2125.9	2116.1	2111.2
50°	2242.1	2222.5	2198.1	2169.9	2143.0	2119.8	2107.5	2101.4
52.5°	2258.0	2234.8	2205.4	2172.4	2138.1	2111.2	2092.9	2086.7
55°	2258.0	2229.9	2193.2	2155.2	2116.1	2084.3	2059.8	2051.3
57.5°	2210.3	2179.7	2134.5	2092.9	2050.1	2012.1	1986.4	1977.9
60°	2088.0	2061.1	2008.5	1968.1	1920.4	1878.8	1859.2	1851.9
62.5°	1900.8	1881.3	1833.5	1798.1	1746.7	1713.7	1690.4	1691.7
65°	1683.1	1666.0	1626.8	1595.0	1548.5	1522.9	1499.6	1482.5
67.5°	1454.4	1434.8	1403.0	1374.9	1336.9	1318.6	1292.9	1277.0
70°	1214.6	1199.9	1170.6	1151.0	1119.2	1103.3	1078.8	1078.8
72.5°	974.9	967.5	946.7	929.6	905.2	890.5	870.9	874.6
75°	752.3	755.9	735.1	722.9	703.3	691.1	676.4	682.5
77.5°	563.9	559.0	544.3	537.0	519.9	515.0	500.3	505.2
80°	390.2	389.0	376.7	371.8	362.1	359.6	347.4	351.1
82.5°	245.9	245.9	241.0	236.1	232.4	230.0	221.4	223.8
85°	135.8	134.5	133.3	129.7	127.2	128.4	122.3	124.8
87.5°	47.7	46.5	46.5	44.0	41.6	45.3	40.4	41.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)